ALW-3016

Acer Switch

16-port 10/100Mbps Switch

User's Guide

Acer

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1. Overview

Thanks for your purchase of the AcerSwitch 3016. AcerSwitch is an 16-port dual speed switch works as backbone switch in SOHO environment for connecting the server or heavy-load user or hubs in LAN environment.

1.1 Product goal

AcerSwitch ALW-3016 provides high-speed and easy access to the LAN and Intranet for corporations. It allows data transmission at speeds of 10 Mbps or 100 Mbps. It provides an easy installation, all you have to do is plug the cables from the adapter cards or hub port to the ports, check the LEDs and you can start networking. And AcerSwitch also provides some advanced features only provided in some corporate products such as FAN error. Advise you in advance to prevent the down of LAN or damage of the equipment.

1.2 Product configuration

The product configuration inside the package is shown in the figure 1-2-1. Please check the contents of the package if there is any missing part before using the switch. The accessories of this product include:

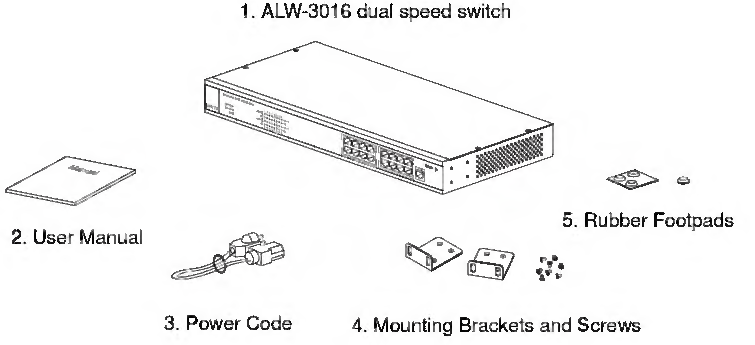

Figure 1-2-1 Product configuration of ALW-3016

2. Make Your Switch Ready

This chapter will guide you through how to install the AcerSwitch ALW-3016. It includes procedures for connecting to the external power supply, installing the switch on your working surface, connecting the switch to your computer, and guidelines to see if it works well. Before setting up your switch, please take notes of the front and rear panel of this switch, as shown in Figure 2-1 and 2-2.

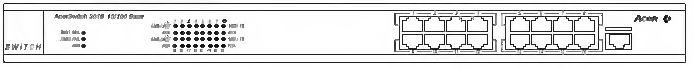

Figure 2-1 Front panel

Figure 2-2 Rear Panel

2.1 Installing the switch

You have to find a solid working surface to place the switch and make sure the equipment is not close to any high voltage power source or over-heated sources. Also keep away from electronic equipment sensitive to electronic interface. The brief procedures of installing your switch should be:

2.2 Connecting to the power supply

Carefully unpack the AcerSwitch ALW-3016 and it's accessories. For the first time that you use this switch, please make sure there is all the same as the checking list in the package. The procedure for connecting to the power will be:

1. Place the switch on the desktop and remove the packing box of the power adapter.
2. Please stretch and plug the cord into the power jack of the switch.
3. Check if the **PWR** LED lights up. If it lights up, then the switch is ready to be connected to the network. See Figure 2-2-1.

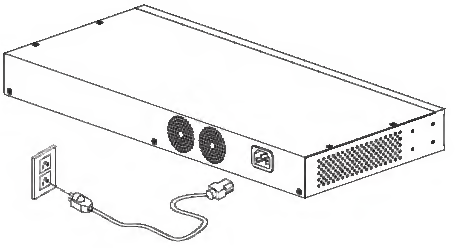

Figure 2-2-1 Connecting to the power

2.3 Rack mounting

To install the ALW-3016 switch in a 19-inch rack, please follow these steps:

1. If the switch has rubber footpads on the bottom of the unit, please remove them.
2. Locate the rack mounting holes on both sides of the switch (see Figure 2- 3).
3. Using a cross-head screwdriver, attach the two mounting brackets to both sides of the switch with the four screws supplied with the unit (see Figure 2- 3).
4. Place the switch in the rack and align the holes in the mounting bracket with the holes in the rack chassis (see Figure 2- 4).
5. Insert two mounting screws (the rack-mount equipment should provide these screws), into each of the mounting brackets and tighten with a suitable screwdriver.

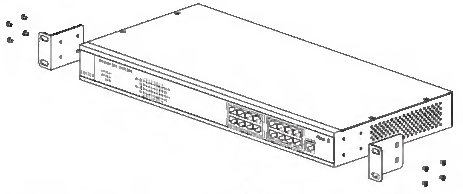

Figure 2-3: Attaching mounting brackets (8 screws: M3x5)

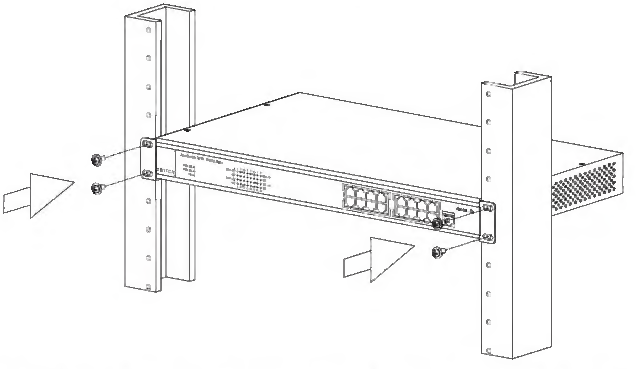

Figure 2-4: Attaching mounting brackets for a rack mount (4 screws: M5x10)

***Note**: The pannel wall should be able to bear three times of the system's weight*

2.4 Connecting to computers

Make sure the switch is ready for networking by checking if the **PWR** indicator displays.

1. Shut down the computer and install an adapter card in.
2. Plug in the one end of UTP cables to the RJ-45 phone jack of adapter.
3. Plug the other end of UTP to normal ports of the switch.
4. Turn on the PC and check if the **Link** LEDs on the adapter card and the switch (Named as **LNK ACT 100/LNK ACT 10**) are lit up. See Figure 2-4-1

If the LED is not lit up, there must be something wrong and please reference to Chapter 4 for quick trouble shooting.

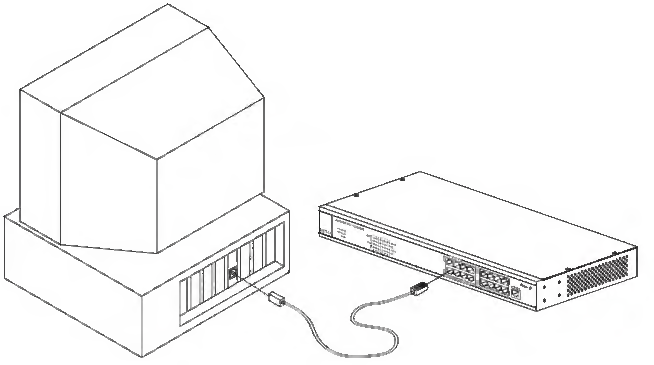

Figure 2-4-1 Connecting to computers

2.5 LEDs interface overview

You can observe the LEDs status to see if the hub works fine. The meanings of LEDs are summarized as Table 2-5-1.

	LEDs	Color	Blink	Indication	Description
System Indicators	Power	Green		Power on	Power is on and works normally
	FAN Err.	Yellow	Blink	Fan Error	Fan inside is work abnormal
		Yellow		Fan Fail	Fan inside is fail.
Port Indicators	LNK ACT100	Green		Link	Port is linked with 100 Mbps
		Green	Blink	Activity	Have data transmission in this port with 100Mbps
	LNK ACT10	Orange		Link	Port is linked with 10Mbps
		Orange	Blink	Activity	Have data transmission with 10Mbps
	FDX	Green		Full Duplex	Full duplex mode
		Dark		Half Duplex	Half duplex mode

Table 2-5-1 LEDs definition

2.5.1 System indicators

PWR: When the power is connected rightly, the **PWR** LED will be lit on Green. If the LED is not lit on, then you should check the connection of your power and the outlet of power.

Fan Err.: When the fan malfunction at work, then the **Fan Err** LED will be lit up and blink. And when the fan is fail, the LED will be lit without blinking. You should check you fan and your vender and have a new fan to instead of the old one to make sure the equipment will work normally.
Note: There are two Fan inside the ALW-3016. Fan Err1 & Fan Err2 indicate the two Fans individually.

2.5.2 Port indicators

LNK ACT 100/LNK ACT 10: When the port is linked with 100Mbps device, the **LNK ACT 100/LNK ACT 10** will be lit on GREEN, or it will be lit on orange with 10Mbps device.And when there's any transmission activity in the port, the LED will be blinking in GREEN with 100Mbps or in orange with 10Mbps. If the port is linked, and the LED isn't lit up, please check if the port connector fasten tightly.

FDX: When the port is connected with full duplex, it will be lit up on GREEN. Others it will be DARK.

3. Apply a feasible networking

This chapter describes the network topology for hybrid 10 Mbps and 100 Mbps networks, cabling requirement for connections, the interoperability between hubs and switches. And tell you how to use the ALW-3016 to expand your port numbers.

3.1 Connecting a hub/switch to normal port

You can use the ALW-3016 as a backbone switch in small and medium size LAN environment, and for the purpose of expanding your port number you can connect another hub/switch with it's uplink port to the normal port of ALW-3016. See Figure 3-1-1

1. Place the hub/switch on a stable surface.
2. Use one end of the UTP/STP cord to connect to the uplink port of the hub/switch.
3. Use the other end of the UTP/STP cord to connect to the normal port of ALW-3016
4. Check the status of **LNK ACT 100/LNK ACT 10** LED. If the **LNK ACT 100 /LNK ACT 10** LED is lit on green then it works normal.
5. Then you can connect the terminal to the new hub/switch

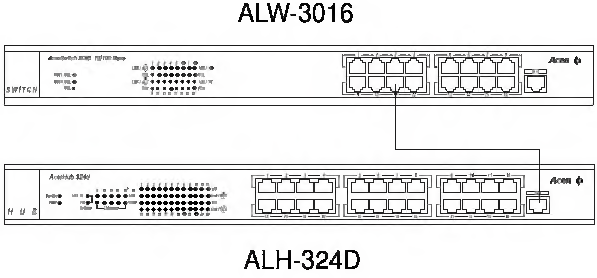

Figure 3-1-1 Connecting to normal port with other hub/switch

3.2 How to use up-link port

With up-link port you can use it to cascade to another switch to expand your network. Please refer to the following procedure.

1. Use one end of UTP/STP to connect to the up-link port of ALW-3016
2. Use the other end to connect to the normal port of the new switch
3. Make sure the **LNK ACT 100/LNK ACT10** LED is lit then it will work normally.(See Figure 3-2-1)

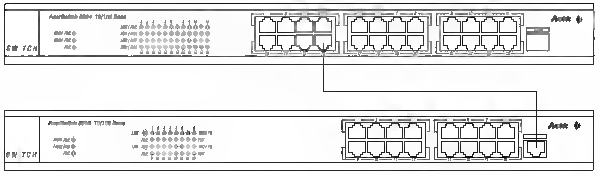

Figure 3-2-1 Up-link port connection

3.3 Application

With this application diagram, you can clearly see the possibility what ALW-3016 can do for you in expand your network. (See Figure 3-3-1)

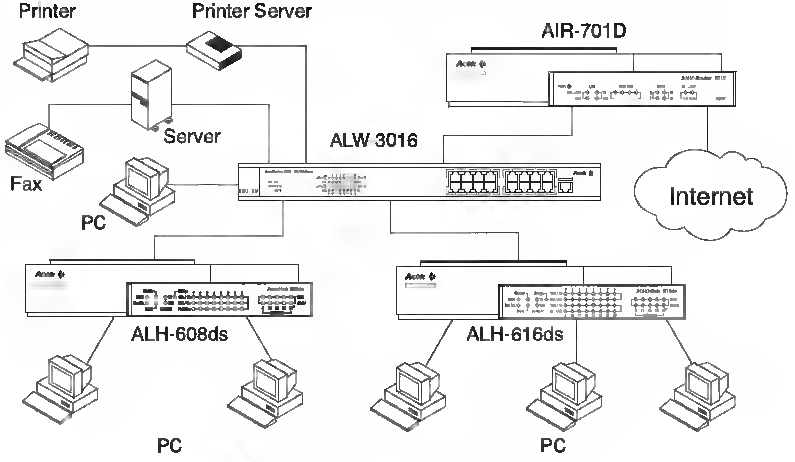

Figure 3-3-1 Application diagram

***Notice**: Use UTP Cat. 5 to connect to 100 Mbps equipment and UTP Cat. 3,4,5 to connect to 10 Mbps one.*

4. Trouble shooting

Symptoms	Possible Reason	Suggestion
All LEDs are off.	The hub is not receiving DC power.	1. Check if the power adapter plug is securely fastened into the AC outlet.
		2. Contact you vender if still unworkable.
Fan Err. LED is blinking or down	The fan is dead or work abnormal	1. Check your fan, maybe you should have a new fan.
		2. Contact the vender
LNK LED of a connected port is off.	1.The UTP cable is not securely connected	1. Check the cable connection
	2.The port is bad	2. Try to connect another port
	3.If the other party is a PC, the Network Interface Card (NIC) could be not working	3. Check if the network interface card (NIC) were installed properly.
	4.If the other party is a hub or LAN switch, the connected ports signal could be cross-over	4. Make sure ALW-3016 normal port is connected to the other hub's (or switch's) uplink port, and ALW-3016 uplink port is connected the other's normal port.
	5.The UTP cable is broken, or it is cross-overed cable.	5. Try another normal cable.
100 LED is not lit when connected to a 100 NIC or 100Hub (but LNK LED is lit.)	The auto-negotiation function is failed between ALW-3016 and the other part	1. Check if you force the connection equipment in specific mode. If, yes, then free it to auto-negotiation
		2. Un-plug the UTP cable from ALW-3016 and plug-in again.
		3. Check if the NIC is setted to auto-negotiation mode
		4. Check if the other hub is set to auto-negotiation mode
		5. If the above steps does not work, it is an interoperability problem, contact your vender.

Appendix: Specifications

Physical Specification

Ports	16 dual-speed 10 BASE-T/100 BASE-TX RJ-45 ports 1 Up-Link 10 Base-T/100 Base-TX RJ-45 ports
Dimension	440 (Width) x 205(Depth) x 45.2mm(Height)
Weight	2.5 Kg
Power	Switching power supply Input: 100~120/220~240V AC, 50-60Hz

LEDs indicator

Power, fan error, LNK/ACT, FDX for each port and Speed 10/100Mbps

Switch Processing Scheme	Store-and-forward
Address Table	supports up to 8K unicast addresses

Cabling requirement

UTP Cat. 3,4,5 for 10Base-T
UTP Cat. 5 for 100 Base-TX

Standards Conformance

Standards	IEEE 802.3/802.3u
Environmental	Operating temperature: 0~50°C (32~122°F) Operating humidity: 20%~80% non-condensing
EMI	FCC Class A, CE Class A, VCCI Class 1 and C-Tick class A

Product Limited Warranty

Acer Netxus Incorporated (ANI) warrants its product to be free from defects in materials and workmanship, under normal use and service, for the following lengths of time from the date of purchase from ANI or its Authorized Resellers.

Network adapter card	Limited Lifetime
Unmanaged hub	*Limited Lifetime
Dual-speed hub	*3 year
Switch and managed hub	*3 year

** Power supply/adapter and fans in these devices provide ONE YEAR warranty*

All products with limited lifetime warranty have a standard five-year warranty. This warranty does not cover the product if it is damaged by abuse, accident, misuse, improper installation, or improper testing. If a product does not operate as warranted during the applicable warranty period, ANI shall, at its option and expense, either repair the defective product or part returned to ANI, or deliver to customer an equivalent product or part to replace the defective item. Definitely, all products that are replaced will become the property of ANI. Replacement products may be new or reconditioned. Any replacement or repaired product or part has a ninety days warranty or the remainder of the initial warranty period, whichever is longer. ANI shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to ANI pursuant to any warranty. Before you obtain warranty service, you must request an RMA (Return Materials Authorization) number by calling, faxing or writing ANI's Customer Service Department at the numbers listed below. You must use the original container (or the equivalent) and pay the shipping charge.

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Contact us:

Acer Computer International Ltd.

Taiwan Branch
Tel: 886-2-2696 0123 ext.3130
Fax: 886-2-8691 2316
http://www.aci.acer.com.tw

Acer America Corporation

Tel: 1-408-432 6200
Fax:1-408-922 2993
http://www.acer.com/aac
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Fax: 81-4-8290 1820

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http://www.aceruk.co.uk

Acer Computer France S.A.R.L.

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Fax: 33-1-4817 4089

Acer Computer GmbH

Tel: 49-4102-488-0
Fax: 49-4102-488-101
Dealers' Information
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End users' Information
Hotline: Germany 0180-5009898

Acer Computer Iberica, S.A.

Tel: 34-3-499-0303
Fax: 34-3-499-0483

Acer Italy/Texas Instruments

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